DOCUMENT RESUME

ED 155 639 CS 004 157

AUTHOR Rosner, Jerome
TITLE Relative Teachability and Compensatory Education.
INSTITUTION Pittsburgh Univ., Pa. Learning Research and Development Center.
SPONS AGENCY National Inst. of Education (DHEW), Washington, D.C.
PUB DATE May 76
CONTRACT 400-75-0049
NOTE 48p.; Paper presented at the Conference on Theory and Practice of Beginning Reading Instruction, University of Pittsburgh, Learning Research and Development Center, May 1976; For related documents see, CS 004 132-133, CS 004 135, CS 004 137-173, ED 125 315 and ED 145 399

EDRS PRICE MF-$0.83 HC-$2.06 Plus Postage.
DESCRIPTORS *Beginning Reading; *Compensatory Education; Conference Reports; Diagnostic Teaching; *Learning Characteristics; *Learning Disabilities; Needs Assessment; Primary Education; Reading Instruction; Reading Research; Remedial Instruction; *Remedial Reading; *Student Characteristics; *Teacher Characteristics

ABSTRACT

There are two educational facts of life: some children are hard to teach and the need exists for some form of remedial reading instruction. This paper seeks to impress on teachers the need to identify those children who are hard to teach and then to adapt the components of remedial reading instruction to fit the needs of those students. This "best fit" rationale requires the identification of certain student characteristics and instructional/teacher characteristics, some of which are discussed. The paper concludes by commenting on several papers presented at the Pittsburgh conference on the theory and practice of beginning reading in terms of the hard-to-teach child and of components of remedial reading instruction. Discussion following presentation of the paper is attached. (RL)

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ED155639

Relative Teachability and Compensatory Education

Jerome Rosner

University of Houston

College of Optometry

This paper was presented at the conference on Theory and Practice of Beginning Reading Instruction, University of Pittsburgh, Learning Research and Development Center, May 1976.

Conferences supported by a grant to the Learning Research and Development Center from the National Institute of Education (NIE), United States Department of Health, Education, and Welfare, as part of NIE's Compensatory Education Study. The opinions expressed do not necessarily reflect the position or policy of NIE, and no official endorsement should be inferred. NIE Contract #400-75-0049

CS004 157

Relative Teachability and Compensatory Education

Jerome Rosner, O.D.

New England College of Optometry

The emphasis of this Conference, we are advised, is on compensatory education. I am taking this to heart as I offer my remarks as a discussant. I am interpreting the word "compensatory" in a literal sense -- providing special assistance that will make up for, or offset, one's inability to perform "normally" in a given situation.

Society has developed many compensatory devices -- particularly for persons with physical and sensory deficits. There are eyeglasses and hearing aids, crutches and wheelchairs, ramps in lieu of stairs, and special handrails in toilets.

All of these, and many more, are accepted by the general public. No one insists that the child with a hearing loss throw away his hearing aid and "listen harder". No

one makes similar demands on the child with muscular dystrophy who cannot walk more than a step or two without assistance. In these cases, we assure the person requiring the compensatory device that there is nothing offensive with his needing it, that what really matters is that with the device he can perform in some way that approximates the norm.

I concur with that position, and insist that it is a proper one for us to take in education. Lots of children in this country (and elsewhere, to be sure) do not perform satisfactorily in school. Why? Many reasons, I suppose -- but, for the present, most of these reasons are best ignored by educators because: (a) the educator can rarely, if ever, do anything about the "cause", and (b) focusing on the cause tends to distract the educator from his legitimate professional mission -- teaching children.

The point I want to make here is th most children who require compensatory education really do require it. That is, they require "special" accommodation, special instructional conditions. To search for a way that will elicit from these children the kind of independent learning behaviors one sees in satisfactory school performers is -- in many instances -- to waste resources and invite

continued failure. This is especially true with children past pre-school age. In other words, it does little good to try to teach them to do what we have seen adequate performers discover on their own -- such as induce the phonetic values of letters, given appropriate examples. Rather, we have to accept certain children's need for compensatory education and provide it.

My comments, as I respond to these proceedings, will reflect a viewpoint that is based on certain well-established facts: (a) children display a variety of individual differences; (b) some of these differences appear to be relatively fixed -- unchangeable -- at least in the short terms; (c) some of these differences have major impact on how readily a child profits from standard reading instruction -- on how teachable he is.

I will use the construct of "relative teachability" throughout my comments. This is meant to be more than a semantic excercise, wherein the phrase "how teachable" substitutes for "how intelligent". The two may, perhaps, mean the same thing, but the one -- how teachable -- tends to impose the responsibility for the child's learning on those assigned to teaching him, while the other -- how intelligent -- blames the child himself for his progress (or lack of it) in the classroom. Said differently, the

former implies that the child is teachable, although more effort, more ingenuity, more adaptations may be required for him than for others. The latter implies that classroom procedures and outcomes are fixed and predictable; that the instruction will be the same for all and will simply be less effective with the less intelligent children, no matter what.

Before I comment on the papers that were presented, I want first to provide a frame of reference -- a structure for my remarks. It is a biased viewpoint, but one that has been shown, in classrooms, to be valid.

To start, I propose certain assumptions:

1. At least some of the traits which determine a child's relative teachability can be identified, described, and measured in fairly precise terms.

2. Standard instruction can be conceived as comprising a finite number of separate components. These too, can be characterized in fairly precise terms and, as such, can be modified in controllable ways.

3. Given that the above two assumptions are correct, it is possible to match student traits with instruction in such a way so as to effect a "best fit"; so as to optimize instructional outcomes. This can be accomplished by:

a. changing the child; helping him acquire those traits that will make him more teachable. This is often relatively effective with young -- pre-primary grade -- children.

and/or

b. changing the instructional conditions so as to accommodate optimally the child's unique traits.

Relative teachability

Some children are exceptionally "easy-to-teach" (ETT). Given exposure to information that presents a set of salient characteristics (e.g., relevant similarities and differences), they are quick to recognize those characteristics even when they are not highlighted. ETT children are better-than-average inventors of heuristic systems that, once invented, they use, evaluate the outcomes, and modify accordingly. They are better organizers of information; hence, they display better memories. They are able to learn, to make satisfactory progress in the classroom, regardless of the instructional approach that is used. As such, they are reinforced in the classroom and at home, practice what they learn in various settings, become even better organizers of information, and on and on.

Another group of children -- most, in fact -- are of average teachability. They are not so adept at inducing

concepts from minimal information, but they do not require the explication of everything they have to learn. Given a certain amont of appropriately designed direction, they can invent -- discover -- the rest. Given a certain amount of appropriate drill and practice, they memorize adequately. Although they are not as adaptable as ETT children, they are sufficently so to be able to make satisfactory classroom progress with a variety of instuctional approaches.

Other children are "hard-to-teach" (HTT). They require a good deal of explicit instruction. They are not so adept at analyzing information according to its salient attributes. Hence, they are not so adept at organizing that information according to various classification schemes; nor good memorizers, nor good inducers of general concepts. They must be precisely directed to what it is they are to attend to. This, in turn, must be organized in a way that makes it highly apparent and readily memorable, and even then the HTT child requires extended drill and practice in order to retain specific information in memory.

Stated in fewer words, ETT children will tend to achieve satisfactorily regardless of instructional approach -- although there is little doubt but that some approaches will be more interesting, more appealing, than others.

HTT children, on the other hand, will reflect instructional conditions, approximating satisfactory classroom achievement only when the instruction is specifically designed to accommodate their unique characteristics.

If we can accept the above principles, it now becomes necessary to define the relevant components of instruction: that is, those student traits that must be accommodated when a "best fit" is sought and the instuctional conditions that are amenable to modification for providing that best fit.

The Components of Instruction -- The student and the instructional conditions

The assumptions presented above asserted that standard instruction could be conceived as comprising a finite number of components which could be defined in fairly precise terms, and that the same could be done with relevant student characteristics.(Cooley and Lohnes, 1976) Clearly, this could yield a lengthy list, if one were to succumb to hair-splitting. For this discussion, I suggest that we conceive of instruction as comprising only three major components: program, teacher, and physical environment.

The trick, then, is finding the best organization among the three components and the best interaction between those three and the student himself. Given a good

fit, the student should learn -- indeed that is the criterion for determining whether the fit is a good one. (Learning, in this instance, is defined as the acquisition of skills and knowledge that were not present prior to the interaction between the student and the instruction.)

We now have to examine and define these components separately, before attempting to determine how to construct the best fit among them. As we do, particular concern will be devoted to providing for the needs of the HTT child. By definition, the others require less individual concern; they are at least adequately teachable under a variety of conditions, hence the fit need not be so precisely designed.

The student: What student characteristics are particularly important, in terms of learning outcomes? Obviously, a child's physical state is crucial. The child who is drastically undernourished, the child who cannot see and/or hear to some appropriate level, the child who cannot sit upright for extended periods of time because of some physical disability -- those children will not profit optimally from standard instruction. For our purposes, however, these characteristics are not of direct concern. If they do exist, they should, of course, be identified and taken care of, to whatever extent

possible, by the proper health-care professionals. The primary interventions should come not from the educational system but, rather, from the outside agents who are prepared to provide proper professional care. Education's responsibility commences after the outside professionals have done all they can; further discussion of the educator's role in these situations is beyond the scope of this conference.

Motivation is yet another important variable -- one that strongly affects a child's classroom performance. However, it is not useful to address the question of motivation out of context -- that is, without also discussing the environment in which the desired behavior is to be elicited and the tasks that are to be engaged in. So, for the present, I will ignore the topic and assume that every child can be motivated, so long as we are clever enough to provide the kinds of conditions that will generate that motivation -- conditions that make it possible for the child to learn, progress at some satisfactory rate; conditions that emanate from effectively matching instruction to the child's unique characteristics

There are, I believe, two basic differences among children that we should worry about because: (a) they

have strong effects on learning; (b) we can do something about them in terms of improving them and/or modifying instruction to accommodate them when they are deficient and relatively immutable. These are the child's basic aptitudes and his entering knowledge base.

Basic aptitudes: This could justify a long list of abilities. However, only two general abilities will be discussed -- two that have been shown to be exceptionally important to learning to read. (Bond and Tinker, 1967; Gibson and Levin, 1975; Rosner, 1972,1975):

1. The child's ability to identify the salient absolute attributes of a concrete spatial array, and then to map the interrelationships among those attributes. (Visual analysis skills)

2. The child's ability to identify the salient absolute (phonological) attributes of a verbal acoustical array, and then to map the interrelationships among those attributes. (Auditory analysis skills)

In simpler terms, visual analysis skills are those abilities that enable us to perceive a spatial array as being made up of a finite collection of parts that fit together in a specific way. Auditory analysis skills are those abilities that enable us to perceive spoken language as being made up of a finite collection of oral sounds that fit together (sequence) in a precise way.

It has been well documented that children acquire these analytical skills as they mature and develop -- that, in fact, the acquistion of these skills can be used as milestones for plotting development. The six-year-old, for example, is expected to display better visual and auditory skills than is the four-year-old. He is expected to be able to copy a geometric design as complex as a triangle or divided rectangle, whereas the four-year-old has probably just acquired the capacity to copy a square. (Ilg and Ames, 1964) The six-year-old is typically able to analyze a spoken word into its phonemes, demonstrating this capacity by responding accurately to the request of saying the portion of a word that remains after deleting a phonemene. The four-year-old cannot ordinarily do this. At best, his unit of analysis in attending to spoken language is a semantic one -- the syllable in a two-syllable compound word. (Rosner and Simon, 1971)

There is strong evidence to support the argument that until these skills reach a certain level of competency, children will not profit optimally from standard primary grade instruction in reading or arithmetic; they will not be able to perceive the underlying coding systems, to induce the critical concepts from minimal information. Rather, since they will not recognize

that letters and numerals serve to "code" -- represent -- these absolute attributes, they will be forced into trying to memorize everything as separate bits of information -- an approach that has finite limitations, given the capacity of normal human memory.

It appears, further, that these skills are, at least to some degree, subject specific. Visual anlaysis skills tend to relate most directly to arithmetic and (reading and listening) comprehension; auditory skills to primary grade aspects of reading, commonly identified as "decoding". (Rosner, 1973) If follows, therefore, that a child who displays substandard visual and/or auditory analysis skills is likely to experience learning difficulties if standard instruction is employed.

Knowledge base: In addition to the two basic aptitudes -- visual and auditory analysis skills -- certain facts must also be available to the student. ("Facts" differ from "skills", in this context, in that skills are developed -- acquired as a normal outcome of growth and developement, while facts are acquired as the outcome of learning and would not be known to the student if they had not been taught, in one way or another.)

For example, if he is to be a reader, the child must have acquired a great deal of prior information.

He must be able to map language onto orthographic symbols with ease -- fluently -- in units of sufficient size so as to access meaningful information. This implies that he is very familiar with the orthographic symbols used in that reading system -- they must be in his knowledge base. If he has to resort to analyzing letters into their salient attributes before he can identify the letters themselves, the disruption will have a remarkably debilitating effect upon his reading. In addition, he must be familiar with the spoken version of the words he is to read -- they must be in his knowledge base. If he is not familiar with the spoken words, learning to read them will be extremely difficult. There are many other relevant examples that could be given, but these two should be sufficient to illustrate the point.

The interrelationship between these two variables -- basic aptitudes and knowledge base -- is strong and evident. Given a child with highly competent basic aptitudes but lacking in knowledge base -- because he is a recent immigrant, say, and totally unfamiliar with the letters -- the child will be forced to attend to minute concrete attributes of the printed text. This will slow down his reading to the point where extracting meaningful information is impossible -- even if he was acquainted

with the spoken form of the words he was to read.

If we can accept the premise that the two student variables we must be concerned with are the child's basic aptitudes -- his visual and auditory analysis skills -- and his entering knowledge base, then we can readily perceive the necessity of excerising one or both of the two options mentioned above -- change the child and/or modify instruction to accommodate the child.

The first option, change the child, implies that something can be done about teaching a child more efficient basic aptitudes and expanding his knowledge base. This does appear to be possible, at least to some extent. That a child's knowledge base can be increased is obvious -- the trick is to do it before he enters the classroom and starts to fail. Although it is not so blatantly obvious, it is also true that many children respond favorably to programs that are appropriately designed to teach them better visual and auditory skills and that the effects of this training can be observed in their school performance. (Rosner, 1972) Again, the trick is to intervene early -- before the child starts to fall behind in his classroom programs.

Most of this information is available elsewhere. Given the emphasis of this conference, compensatory

reading instruction, we should now turn to examining the three components of standard instruction, paying special attention to ways in which one or more of these components can be modified to accommodate effectively a child's unique needs. (As already noted, our attention will be directed specifically to the HTT child, since -- by definition -- he is the one who suffers most from being placed in a non-compatible instructional situation; he is the one who qualifies most often for compensatory education. Someday, of course, we should examine the implications of "best fit" with the ETT child. Just because the ETT child does not present learning problems is no reason for him to be ignored. But, for the moment, this aspect of the topic will be set aside.)

The three components of standard instruction, identified above, were: 1. the program; 2. the teacher; 3. the physical environment. Let us look at them in that order.

The program: This is the component that has been given the most attention at this conference -- indeed, at virtually every conference where people gather to discuss reading instruction. Perhaps this is justified; perhaps, rather it is more the case that since it is the components that is best defined, it is the one that is examined most often. (...a little like the old joke of the village idiot who explains his looking for a lost

coin under a street light rather than at the place where he dropped the coin -- some remote, darker place -- because "there is more light here".)

There are many different reading programs available today, and these can be described and compared in a variety of ways. (Reading program, in these remarks, refers to the instructional materials -- their objectives, scope and sequence.) For our purposes, inasmuch as we are attempting to devise a system where the program can be optimally articulated with other instructional components and with the unique characteristics of the student, it seems reasonable to suggest that reading programs should be examined in terms of:

1. The extent to which the basic concepts of phoneme-grapheme relationships are make explicit; that is, the extent to which phonetic principles are introduced overtly and precisely as against being implied. Some reading programs lean heavily on explicating the relationships between letters and sounds; these are usually identified as "phonics" programs. Others tend to be biased in the opposite direction, claiming that emphasizing letter-sound correspondences will interfere with the ultimate goal of reading -- extracting meaningful information from printed text; most of the currently popular basal programs

follow this rationale and introduce a number of "sight words" in the beginning lessons.

2. The extent to which appropriate "chunks" -- larger units of analysis; strings of letters in addition to just individual ones -- are taught explicitly. It seems obvious that one cannot get beyond the primary level of reading if he is limited to reading letter by letter -- sound by sound. The competent reader must deal with larger units --letter clusters that represent units of blended sounds. Yet, this skill of reading larger units is not taught directly in most reading programs.

3. The extent to which drill and practice materials are made available and interesting. Some children -- especially, by definition, ETT children -- do not require much drill and practice. The memorize easily, simply because they are such good organizers. Hence, they do their drill and practice outside of the classroom; they tend to read more since they know how to read. Other children -- the HTT, by definition -- are not good memorizers. Obviously, since they are not good analyzers, they cannot be very good classifiers, hence they cannot be good organizers, hence they cannot be good memorizers. The units they attend to are small. Their processes are too primitive to deal with larger units in a differentiated fashion. This places serious limitations on their

reading speed and comprehension. As a result, they do not practice very much; they cannot read very well -- if, indeed, at all. Thus, they require lots more drill and practice -- of the proper type.

Suppose we speculate on how two children -- one ETT, the other NTT -- respond to a standard lingusitic reading program where a good number of "phonically regular" sight words are introduced early; where phonics principles are not taught in a structured, precise way, but rather, are strongly hinted at. The ETT child would probably memorize -- learn to recognize on sight -- a limited number of words such as fat and sat. Once he has done this, he will (because he has competent analysis skills) recognize that these two words are in some ways the same and in other ways different. Then he is taught another word -- fit, for example. Again, the ETT child quickly notes how this new word, fit, compares visually and acoustically with fat and sat. Having done this, he will not have to be taught, nor will he need to memorize, the word sit. He will read it on his own and explain that it "has to say sit", "what else could it say?" The system, from his knowledgeable view, is obvious.

Over time, this child will add more words to his storehouse of memorized knowledge (his knowledge base),

thereby acquiring an even broader basis upon which to figure out unfamiliar words. Not surprisingly, he likes to read; he reads voluntarily, for pleasure. After all, he can read! Thus, the circumstances are circular -- the child figures out the system because (a) he can analyze the visual and acoustical construction of words into salient separate parts; (b) he quickly recognizes where these constructions are the same and where they differ; (c) he makes better "educated quesses" when he encounters a word that is not as regular in spelling as it might be, and (d) he is inclined to read, at least in part, because it is something that the adults in his life enthusiastically approve of. Reading makes him even better at analyzing words -- printed and spoken -- and methodically comparing them, thereby enabling him to make better educated guesses, and so on and on and on.

There is more to learning to read than this, of course. ETT children usually have a fair number of words in their speaking vocabulary (knowledge base) before they enter school; you cannot make an educated guess unless you are educated -- unless you know the words. And too, they read enough so that their reading becomes fluent -- where most words become familiar and are recognized at sight and only a few have to be sounded out. This point

is crucial. Words that contain more than a few letters cannot be sounded out very well. It takes too much time; by the time the child gets to the letters at the end of such a word, he tends to forget the sounds from the beginning of the word -- to say nothing of the fact that, in many words in our language, sounding out will not work since the letters have more than a single sound representation. The more time spent on sounding out words, the less time available to think about -- comprehend -- the meaning that the words convey.

The good reader sounds out very few words. He recognizes most of them on sight; but, he did not originally learn them all through memorization even though he ultimately does memorize them. At first, he probably <u>did</u> sound out a good number of those words, but he did it often enough so that they became completely familiar to him. He stopped paying attention to the separate letters and sounds. He got so that he dealt with the total word as a unit and rarely had to resort to sounding-out strategies. And, in those cases where the whole word was not a familiar unit, then a least part of the word was.

This last point is important. All learning, be it learning how to read, or whatever, depends upon adding new knowledge to knowledge already acquired, as in a nesting process -- where the new knowledge encompasses

the old rather than attaching to it. Rarely are we asked to learn something that is entirely novel. There are always some components that are already familiar. Thus, by recognizing those familiar components, we simplify the learning task -- there is not all that much that is new. And, in those instances where there is a lot of new information to acquire, we know that the task will be more difficult and require more time.

Unfortunately, the HTT child does not respond as described above. By definition, this child does not readily perceive salient similarities and differences because he is not an adept analyzer of visual and/or acoustical arrays. As a result, he resorts to attempting to memorize all the words he is asked to learn to read; and, worse yet, he does not invent heuristic strategies for facilitating memorization.

Such a child requires forthright instruction in letter-sound correspondences. It is foolhardy to assume that he will come upon this concept on his own -- within a reasonable length of time, before his motivation is utterly extinguished. In addition to straightforward phonics, this child must also be shown how very small words fit into larger words, and be given sufficient drill so that he commences to perceive those smaller

words -- letter clusters -- as single units of analysis rather than collections of separate letters, with each letter representing a separate sound. Having been shown, he is likely to apply the concept, and display this in improved reading skills. (Rosner, Cass, DiCostanzo, 1976)

Now let us look at the next component, the teacher, and discuss how that variable of instruction can be defined so that better matches between student and teacher can be determined.

Teacher: What teacher traits are pertinent in terms of accommodating a student's unique characteristics -- his basic aptitudes and knowledge base?

I propose the following:

1. The extent to which the teacher is acquainted with the subject being taught; specifically, the degree to which the teacher is familiar with the basic concepts of reading as discussed above, under "Program". It may come as a surprise to some, but it is indeed shocking how few teachers enter their profession totally unaware of the relevent dimensions of teaching reading -- of the principles that underlie the various reading programs they will encounter in schools; and it is even more shocking how many teachers continue to be unaware of these things even after they have taught for five or more years.

2. The extent to which the teacher is willing (and able) to be pedantic; to be precise and repetitive -- this in contrast to being the kind of teacher who thrives only in an instructional environment where "discovery learning" is the desired outcome. (HTT children are not good discoverers. If they were, they would not be HTT; they would not need compensatory education.)

3. The extent to which the teacher can perform in a structured, relatively non-dynamic environment. Some teachers are exceedingly comfortable in such a setting -- in a classroom where the desks are arranged in orderly rows, where the children are conditioned to raise their hands before speaking, and so on. Some are not -- they have been influenced by "modern" notions to the degree that they perceive such environments as punative -- "repressing" -- and, in general, negative. Yet, in my experience, HTT children seem to require such settings, at least during that portion of their school day when reading is taught.

4. The extent to which the teacher can cope with a slowly-rising, small-increment learning curve. The HTT child <u>can be taught</u> (That is the underlying assumption of my remarks -- of the Conference -- of course), but he learns more slowly -- his rate being depressed

because so much of what the ETT child discovers on his own must be taught to him in an explicit way, and practiced. All this takes time; hence slowing down the rate; hence flattening the learning curve. Some teachers can cope with this, some cannot; they lack clinical confidence, the experience, to know that the approach will "work", if they will only sustain.

Physical Environment: What are the physical variables of an instructional environment, in terms of accommodating the individual needs of HTT children?

1. The extent of physical structure available. Many schools, in recent years, have been built as "open space" facilities; walls between classrooms were eliminated. This has created buildings that often are attractive, novel looking, even exciting -- but not necessarily what the HTT child needs. If the child requires more explicit instruction and more drill and practice than do most, then the open space, and its accompanying noise and other distractions, is not desirable.

2. The extent to which the student makes decisions regarding the organization of his school day. Certain classroom management schemes are designed to allow the child himself to determine which classroom activities he will engage in and when he will do so. The child with

competent analytical skills -- the child who is adept at analyzing and organizing concrete spatial arrays -- is likely also to be adept at organizing time. In contrast, the child who is not competent at sorting and ordering the concrete components of a spatial array is likely to encounter similar confusion when faced with the task of organizing something less concrete, such as the time available to him in a school day. The HTT child is not apt to be a good organizer of time. Hence, he is likely to be better off in an environment where scheduling is relatively rigid -- predictable -- and done by someone other than himself.

3. The extent to which class makeup is homogeneous in terms of ability in the subject being taught. This, I recognize, is a controversial issue. There are those who will argue that homogeneous grouping is the catalyst for "self-fulfilling prophecies". In one sense, this argument can be supported. On the other hand, there is little sense in placing children who require the kind of structure described above with children who make at least satisfactory progress under less precisely organized circumstances. How can a teacher be induced to teach explicitly to a handful of children when the others in the classroom do not require that? What is the teacher to do with those other children? And what is the teacher

to do with the HTT children during those times when the instruction is being aimed at their more competent classmates? Surely the impact on self-image -- recognition of their inferior abilities -- is more important than are the negative effects of homogeneous grouping.

Homogeneous grouping need not lead to self-fulfilling prophecies nor need it be maintained for the entire school day. Why cannot children be grouped one way for reading instruction (honogeneous) and another (heterogeneous) for other classes? And secondly, is it not reasonable to argue that, given a classroom teacher who displays the traits necessary to succeed with HTT children, given an appropriately accommodating reading instruction program, given a physical setting most effective for these children, learning will occur -- that the children will make progress and may, in fact, ultimately be able to be blended in with their ETT classmates?

4. Student-teacher ratio. As noted -- too frequently perhaps -- children who are HTT require much more careful instruction, more teacher attention, since they are not so adept at self-instruction; hence, the teacher must spend more time with each student; hence, the teacher will not be able to manage effectively as many students as will the teacher whose class comprises ETT children. Thus,

student-teacher ratio must be kept as low as possible. It is nonsensical to insist that this is not reasonable, that student-teacher ratio must be the same across classrooms. It simply will not work: it will only perpetuate what is now going on -- continued failure of those children who can least afford to fail. (And again, this need not be for the entire school day, nor the duration of the child's school career. It should be provided for so long and in those subjects where the child requires it.)

5. Length of instructional sessions. Some children -- the ETT -- can sustain interest in certain tasks for days on end. Obviously, this is at least in part due to the fact that they can make sufficient progress in whatever they are doing to keep it interesting. The HTT child, in contrast, must deal with smaller increments of instructional material, and usually drill with it. Thus, he is not as likely to retain enthusiasm for the task beyond a limited period of time. This should be accommodated. There should not be fixed time periods of instruction. If ten minutes at any given task is the child's limit, that is what should be accommodated, with the teacher constantly being attentive to signals that indicate when the child is able to sustain for longer periods of time. And this will occur as the child starts to make progress.

]6. The extent to which teachers are reinforced by school administrators, parents, et al. Teachers are people too. They must complete their work day with a feeling that they have demonstrated professional competence. If they do not end the day with that sense, they will probably do one of two things: (a) quit their job; (b) develop a rationale for explaining why their students are not progressing -- a rationale that excuses them and fixes the blame on some outside factor, most often, the student themselves, their "abilities", lack of motivation, socio-economic factors, etc.

Clearly, the first option is not excerised very often. Teachers do not work just for money, but it is not a trivial consideration. Hence, since they enjoy earning a salary they are not apt to quit so quickly, especially in this era where alternative teaching situations are not that available. Thus, they are most often apt to accept the second option, and -- once accepted -- there is very little likelihood that the children in their classrooms will change their patterns of behavior.

It is essential, therefore, that school administrators provide adequate and appropriate reinforcement that goes beyond salary. The teacher must be assured that HTT children may not make great strides each day but that

they will progress so long as they are being provided with what they need in terms of instructional conditions. The teacher must know that lack of progress on Monday does not predict no progress the other days of the week; that professional gratification may be delayed, but it will be available, if they sustain. (In truth, of course, this may not be so in every instance, but the mental attitudes must be sustained.)

Comments on conference papers

I have used a great deal of space to present a rationale for teaching HTT children -- children who require a compensatory approach. My comments on the papers will be brief. In one sense, this is unfortunate -- they are good papers in most cases, well thought-out, competently written. On the other hand, for the most part they tend to ignore the specific needs of the HTT child. This is unfortunate, since it is the HTT child who needs the attention -- the expertise -- of the experts gathered here.

The papers can be discussed in accord with the theme presented above.

The student. Carol Chomsky's paper dealt with student traits. Her description of the benefits of using "Invented Spelling" as a way of introducing the child to

reading contains many useful ideas. Unfortunately, my hunch -- my bet, actually -- is that the HTT child will not grasp the concepts of invented spelling. Dr. Chomsky identified three skills that are prerequisite to understanding the concepts. She stated that the child, being introduced to invented spelling, should already know: (a) the printed letters; (b) that letters correspond with spoken sounds; (c) that spoken words break down into separate sounds. I submit that HTT children have difficulty learning all three of these prerequisite skills -- especially the third one. Hence, my hunch, stated above. On the other hand, Chomsky's notions should not be discarded. It seems to me that the methods she described might very well help HTT children grasp the concepts she has identified as prerequisite. In my opinion, this should be explored. If, in fact, introducing a child to invented spelling activities serves to sensitize him to the phonological attributes of spoken language, then it will make him less HTT. That is a worthy goal.

Liberman's paper also belongs in the category of student traits. Her thesis supports the importance of phonemic segmentation skills. Her description of Elkonin's teaching strategies and their effects on children in her study lend strength to the argument that children <u>can</u> be taught better basic aptitudes -- in this instance, audi-

tory analysis skills. My major concern, here, is the implication that once a child learns how to segment spoken words into phonemes, he will "catch on" to phonics and will learn to read. There is a second step -- the one I emphasized before; namely, teaching the child to deal with larger units of analysis -- letter clusters. Indeed, ETT children do this without much direction; HTT children do not -- they have to be shown.

Ed Smith's paper probably belongs in this category also, although it has implications for program as well. However, his studies are with adults who can read and, in my opinion, this is not relevant to our primary concerns. To discover what good readers do offers no practical information about how to teach HTT children to read.

The program. Frank Smith's presentation fits under the rubric of program -- yet his main point, as I interpret it, is that structured programs are to be avoided; that reading, in essence, is comprehending printed text, and teaching subcomponent processes will only serve to get in the way. I have no quarrel, other than that HTT will not learn to read unless they are literally taught subcomponent processes. His plan -- that we teach teachers how to teach children to read -- is a good one. I support him. But, that day seems to be far off -- and will remain distant until someone (conferences like this?) defines

how to teach children to read.

Fletcher's description of CAI also pertains to program. It was a clear, concise description of how technology can be exploited to teach children. My major impression -- they quit too soon. For whatever reason, they failed to pursue their mission long enough and far enough. CAI, in my judgment, could be very helpful to HTT children -- but only when the software has been fully and appropriately developed. For example, CAI should be a good way to teach the concept that certain letter clusters can always be given the same sound. Fletcher described how this was done for certain smaller clusters (e.g. an, it). It could and should have been carried further, I think.

Bartlett's paper was useful -- again in terms of defining the potentials of program. Her comparison of Open Court and Distar emphasized certain program variables that do make a difference -- especially with HTT children. Obviously, given the rationale I presented above, I would lean towards Distar, but her criticisms of it are well taken. Distar, indeed, may not lead to class discussions beyond a very concrete level. But, what ever happened to the Language Arts period in the school day? Surely it is still there and surely that is a good place

to foster language development, independent of the beginning reading program the children use.

Juole's paper presents concepts that are opposed to the ones I favor, yet he justifies these with data. This paradox is a matter of interpretation, I think. He notes that "skilled readers do not decode phonetically" and thus urges that program should emphasize word recognition skills. I agree -- if all children could learn whole words without resorting to phonetic decoding. HTT children cannot, and his data, show that.

Johnson's paper is highly compatible with the concepts presented in this discussion. Her structure is more complex than mine and reflects a concern with the underlying neurological basis for certain reading difficulties. I do not necessarily agree with some of her rationale, but I have no argument with the instuctional methods she describes. They are good examples of compensatory teaching, albeit that they seem to call for a white-uniformed teacher to implement them.

The teacher. Two papers focused on teacher traits. Clay's presentation left me impressed, but uncertain about what it was she taught her teachers to do. More details are needed. Calfee and Drum also emphasized the importance of competent teacher decisions. They claim, this can be obtained through the use of effective tests.

I agree, but I lack their faith in the feasibility of designing a testing-teacher scheme that will be sufficiently differentiated to serve all children and still be manageable.

Conclusion

It is time to end my discussion. I want to do so on a positive note. Meetings of this type are important. Sure, some papers addressed the primary issues of compensatory education directly; some seemed to do just the opposite -- and one may be inclined to consider these a waste of time. This is probably not the case. Teaching children -- especially HTT children -- is exceptionally complicated. (Teaching ETT children is less difficult only because they do not have to be taught very much.) Providing a platform for diverse viewpoints is vital, lest we become so close-minded as to ignore certain important ideas.

I urge, however, that efforts be made to involve more practitioners in exercises like this. Experimental psychologists tend to be very competent researchers, but they are capable of ignoring certain empirical evidence that the experienced teacher knows -- and could tell them about -- <u>if</u> they were invited to participate and were assured in words and deeds that their participation would be useful. Thank you and good luck.

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OPEN DISCUSSION OF ROSNER PRESENTATION

F. SMITH: We are not going to get anywhere in this kind of a situation by looking for complete closure. Although this is the time of the conference when, I suppose, we should summarize, I don't think we should do that by simplifying. In particular, I think we should look at what we take for granted. We should regard every question as open. In fact, the things we tend to take for granted are probably the things we should look at most closely. One out of many things that I would talk about is this assumption about letter-sound correspondence that seemed so obvious. We speak as if this is common sense. We say that because the spelling system of our language represents sounds, all you have to do to teach a child to read is teach him how to crack the code. There may be some general agreement in the field that this is what reading is all about, but there was general agreement, once, that the world was flat.

We should look at alternative points of view. There are alternative points of view, and they are not simplistic points of view. They have been developed in quite elaborate articles. I can't even begin to sketch them. But just let me make one or two points.

The first point is that even if phonics did work, even if decoding to sound did work--and I don't think one demonstrates that by picking on a few simple words--there is still the question of comprehension. You cannot just say, "Well, comprehension will take care of itself after the child has learned to decode the system." Working on phonics, without comprehension, without understanding what you are doing and why you are doing it is a meaningless activity, and meaningless activities just do not generate learning.

As far as I can see, it is not a question of children learning phonics or not learning phonics. It is a question of making sense of phonics. What we should ask ourselves is how children are supposed to make sense of instruction that they are being given. It is meaningfulness that makes phonics work. It is not phonics that makes sense out of written language. What meaning does for you when you are actually reading, what reading sense does for you, is reduce the number of alternatives. This is what makes this very unwieldy system of phonics work for you. So phonics looks easy as long as you can do it. First there are a lot of rules that can apply on any one particular occasion. For example, ho can be pronounced in 11 different ways at the beginning of quite simple and familiar words. And the brain gets overloaded if there are too many alternatives. You just cannot cope with all of this uncertainty, and you don't solve the problem by saying that after a certain amount of time, everything becomes automatic. Exactly what becomes automatic is very dubious.

Phonics looks easy when you can read, but when you read, you are doing a lot of things apart from just decoding to sound.

Another thing is that it's a mistake, as a number of people have pointed out, to assume that phonics maps into spoken language. Even if our written symbols did map into the sounds of spoken language, we would have to ask which spoken language, whose spoken language, what register of spoken language: the spoken language that I am using now or the spoken language I was using last night over a beer? Even for one person's language, there is no one-to-one match, or anything like a one-to-one match, between these alleged sounds that are represented in the graphemes and what anybody actually says. It's true we may seem to vocalize. Certainly, every time we listen to ourselves we are subvocalizing. But we subvocalize our mistakes as well, and we don't subvocalize

nonsens We, in fact, subvocalize what we have read; we don't subvocalize in order to read.

Finally, let me just remind you that we do not seem to have been concerned with the many children who learn to read. If we were concerned with them, we would be looking at quite different things. What we seem to be concerned with are children who fail to learn to read. That seems to me to be the focus of this conference: illiteracy and the causes of illiteracy.

I suggest that there are many possible causes of illiteracy, of reading problems, that we haven't begun to talk about at this conference. One of the causes of illiteracy that we seem to have assumed at this conference is, I think, very unlikely; that is, the assumption that there are many children in North America at the moment who can't read because nobody has told them that reading is decoding from spelling to sound. I doubt that there are very many children from which this has been concealed. Since I suspect that most children, whether they have learned to read or not, have been presented with phonics at some time in their lives, I think it is a dangerous oversimplification to assume we are going to eradicate illiteracy by giving this great secret to children and training them in it.

JOHNSON: I would agree with a lot of your points, from the standpoint of children who are being referred for learning disabilities now. We have had an awful lot referred, during the period between grades six and seven, who have been working on very, very heavy synthetic concepts.

One little anecdote was about the 7-year-old not performing at all. He had been on some of that set, where you approach the whole word, matching objects, and so on. Finally, he said, with tears streaming down his face when he started

reading, "But I thought you had to know the sounds before you could read." And there are some alternative groups that we need to explore, without always overtly bringing in some of the phonics. But double pronged methods would help.

CALFEE: Lindamood, in California, has also put together a rather interesting program on phonological awareness, one which tries to make a link between the sounds of the language and the ways that those sound are produced. It's an interesting idea and kind of a response to both your views and Frank's. It ties in the Lindamood group, which goes around the country giving workshops.

Recently, at San Francisco State, Lindamood talked to a number of teachers who were in the master's program to become reading specialists, learning disability specialists.

Many of these are also students with strong linguistic backgrounds. To demonstrate to them what they knew and what they didn't know, she gave them the following task. She said, "Spell as well as you can, in English, the word throidge." After that, she said, "Would you try to write down, in any language you use, the difference between these pairs of words: nuclear, nucular, larynx, larnyx?" Fully half of these people wrote out the word throidge in ways that made absolutely no sense in terms of letter-sound correspondences in English. And the same people had great difficulty in figuring out what they had just heard in those pairs of words, and why they were different sounds Some of the explanations were quite elaborate; they had to do with stress shifts and the like. Maybe a lot of people are in on all the secrets of letter-sound correspondence and the like, but, certainly, in this particular population, who are going to be specialists, somebody had kept from them that secret, and to a remarkable degree.

But, again, although we can all come up with anecdotes and throw these rather soft balls at each other, we dearly lack the evidence that we need really to make these strong pronouncements.

JACKSON: I think, though, that the important point that is being made on both sides has to do with giving the teacher a repertoire of teaching strategies, so that when she meets up with the youngster who is blocking--for whatever reason--the phonemic approach, she knows some other way to tap into that youngster, so that she is able to teach him how to read. So I think that knowing the code is very important for the teacher, because I have great difficulty in seeing how she can teach what she doesn't know.

I think that the work that Linda Moods is doing in sound discrimination, where they are finding that lots of people who are supposed to be teaching these sounds can't, in fact, even hear them themselves, is good research.

But I think that you even meet people who have been taught with that particular method, and they have consistently failed. They start a blocking pattern, and although there is nothing wrong with that method, it is not the right method for that person as long as that person is continuing to block. That's one thing that we always have to keep in mind. You have to give teachers a repertoire so that they are able to have the facility to move in and out of varying approaches.

CALFEE: That's certainly a very reasonable statement: that we should examine the unexamined assumptions. Because lots of teachers are teaching things that look like decoding skills or phonic skills, we assume that: they know what they are doing, and they are doing it in an effective way. It takes very little

effort. I suspect, to show that--again to get into Jerry's comments--maybe a lot of teachers really don't understand what they are doing. That may be as much responsible for the blocking that is observed, as anything within the students themselves.

CHOMSKY: When you say the teacher has to know in order to be able to answer a child's question, you have to understand what system she is working from. A small point that keeps coming up has to do with this question of letters representing sounds. What really should have been stressed from the start is the kind of thing Frank Smith is saying when he says that ho has 11 different pronunciations, depending on what comes next. The example I like to use is nat. You cannot know how to pronounce nat. It has one of seven possible pronunciations, depending on what comes next. You have to know which word it is in. The teacher who gives the message that in order to identify the word, you have to work from its pronunciation, from the letters, is working backwards. Pronunciation follows word identification; word identification doesn't come from pronunciation.

The answer is that nat doesn't have a pronunciation until you know what word it is in. And that your first task, using phonics or whatever you are going to use, is to identify the word. Only later does the pronunciation come.

The one place I heard that point made in an instructional program was in the Distar teacher's manual, which acknowledged straight out that there is a difference between the way the words are sounded out and the way we say them.

VENEZKY: There seems to be a confusion here in what Carol and Frank are saying about what an adult reader does and what a child is supposed to do with letters

and sounds. I have heard this from Frank over and over again. Clearly, the adult reader, reading silently, cannot go from letters to sounds and still maintain the reading rates that most average silent readers do. From what I understand, from most phonics programs, though, the whole function of teaching sounds for letters is to give the child an alternative approach to recognizing the word that he doesn't recognize through sight alone. As one of the papers in this conference pointed out, we are not looking for a perfect relationship between letters, or letter groups, and sounds. What we need is a simple way to approximate something close to what, in fact, the child is looking for, assuming that the child is using context and other kinds of cues to make an identification. It is truly absurd to assume that one can go from the spelling of words in English, with any high degree of predictability, to pronunciation. But that is not what is expected, nor is it needed. The child can even leave out the vowels and approximate a word from the consonants and come close to something that may trigger a word from the listening lexicon. That is the function of letter-sound correspondences. They are not there to deceive the public; they are not there to retard children. They are taught as an aid to be used with other kinds of cues. It seems rather absurd to say that we should teach them, but that they would never be used.

F. SMITH: I am not quite sure where the confusion lies. I thought that I and a lot of people who seem to share my views have been saying that phonics is an unreliable system. The way we usually expect children to decode words is the hard way to do it, the impossible way to do it. If you have all of this other prose, if you have context and some understanding of what you are reading about, then you can use phonics as a kind of last check. You know this next word is going to be horse, cow, or donkey. Then, indeed, you can use phonics to tell you

what a word is.

I don't see any inconsistency or confusion there. It seems to me to be exactly the point that I am arguing: The child must be able to make sense of phonics, which means he must be able to comprehend what he is doing. Until the child makes sense of phonics, phonics is absolutely unnecessary.

I don't agree with Dick's point that when you are able to read you do one thing, but when you are learning to read you do another thing. I just don't follow the logic of that. However, he does make an extremely good point, that, I think, applies to a lot of things we have heard at this conference. He says that there are certain basic aptitudes that children almost invariably need. Those aptitudes have a great deal to do with the identification of letters, with auditory discrimination, with being able to say words. Children need to have tremendous aptitudes for all of these kinds of things.

But these aptitudes are not imperative because of the nature of reading; they are imperative because of the way we teach reading. Kids need to have a lot of basic aptitude in order to understand the way in which reading is taught, and I think we should try very hard to separate those two things.

GREGG: I was going to comment on Frank's use of the word comprehend. You used it two different ways. And I think you just summed up the essence. I think we should ask: What is the cognitive process that the child goes through in doing comprehension? This seems to be more important than questions such as: Does he understand, in general, what the teacher is trying to accomplish or what the meanings of phonics or any of these other systems are?

F. SMITH: That is the theoretical issue we have to address ourselves to.

GREGG: I think one of the useful messages of a conference like this is the notion that those words get teased out, and I am hopeful that there can be something, comprehend 1, comprehend 2, comprehend 3. Maybe, we can go on from there.